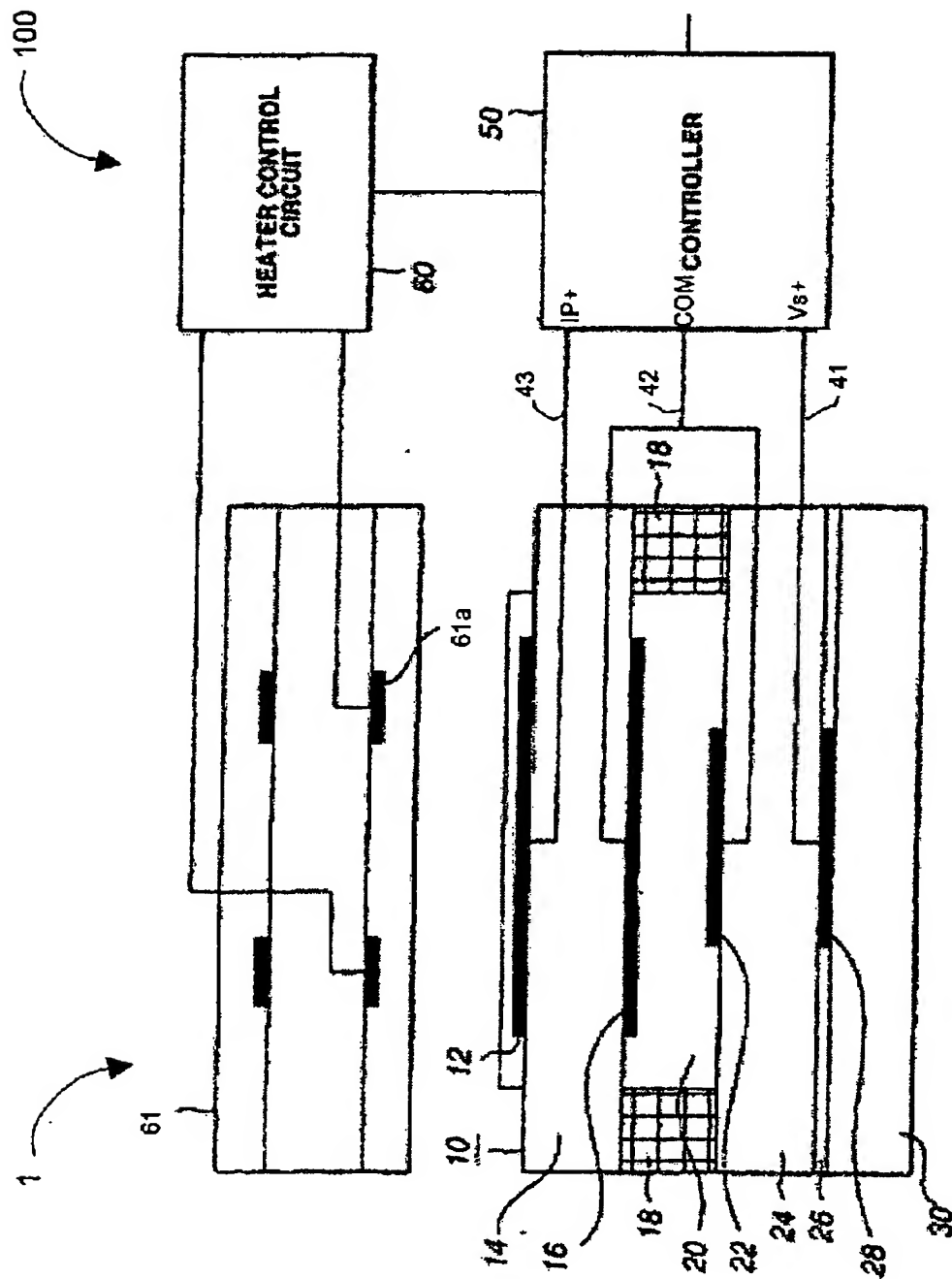


Fig. 1



900

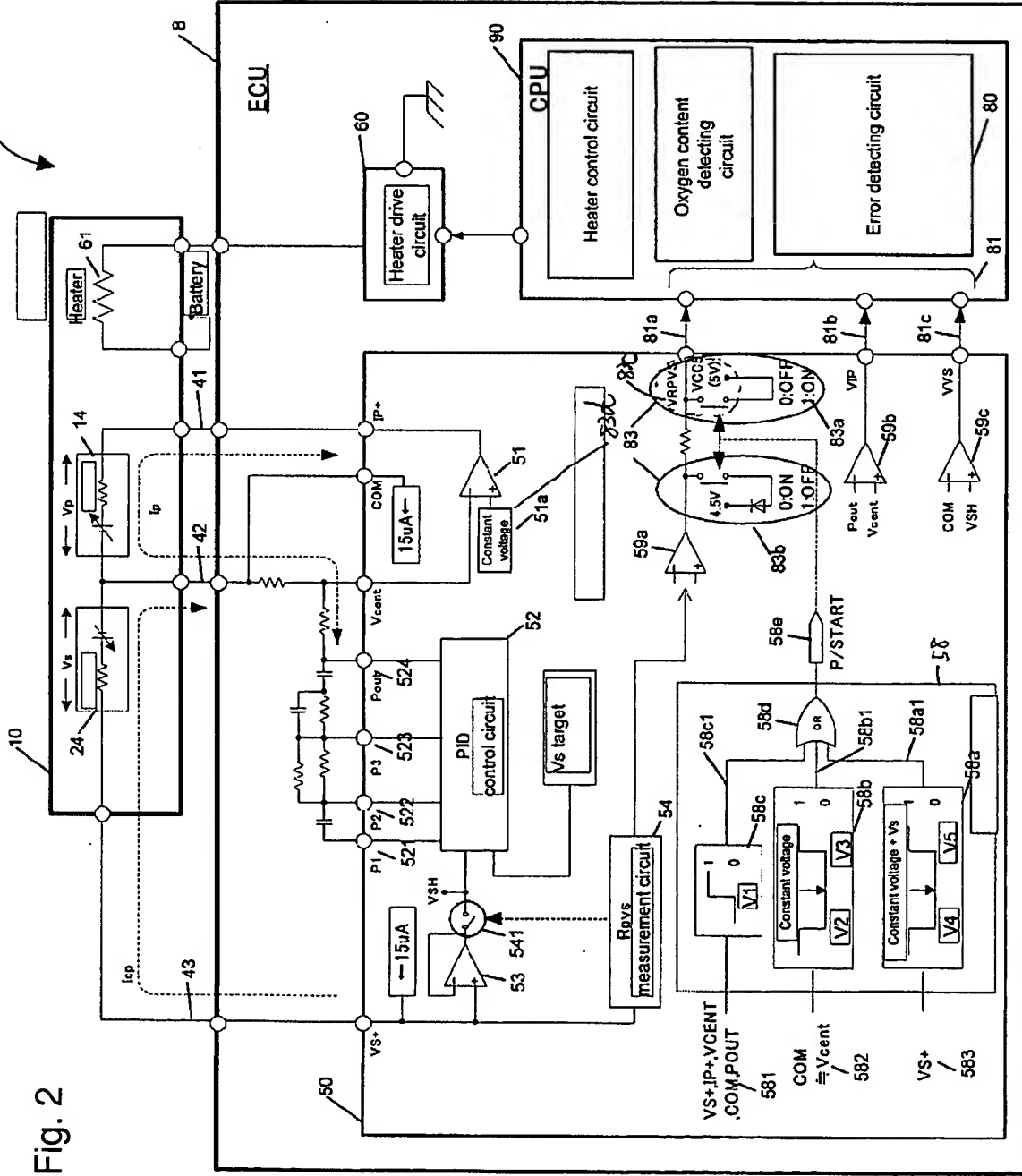


Fig. 3

VVS	VIP	VRPVS	ANOMALY JUDGMENT IN LEAN REGION	ANOMALY JUDGMENT IN NON-LEAN REGION
N	N	N	NORMAL	NORMAL
N	N	L	OTHER ANOMALY	OTHER ANOMALY
N	N	H	OTHER ANOMALY	OTHER ANOMALY
N	N	HH	OTHER ANOMALY	OTHER ANOMALY
N	L	N	Ip+ BREAKAGE	NORMAL
N	L	L	OTHER ANOMALY	OTHER ANOMALY
N	L	H	COM BREAKAGE	OTHER ANOMALY
N	L	HH		OTHER ANOMALY
N	LL	N	OTHER ANOMALY	NORMAL
N	LL	L	OTHER ANOMALY	OTHER ANOMALY
N	LL	H	OTHER ANOMALY	OTHER ANOMALY
N	LL	HH	GROUND-SIDE SHORT CIRCUIT OF Ip+ OR COM	GROUND-SIDE SHORT CIRCUIT OF Ip+ OR COM
L	N	N	OTHER ANOMALY	OTHER ANOMALY
L	N	L	OTHER ANOMALY	OTHER ANOMALY
L	N	H	OTHER ANOMALY	OTHER ANOMALY
L	N	HH	OTHER ANOMALY	OTHER ANOMALY
L	L	N	OTHER ANOMALY	OTHER ANOMALY
L	L	L	OTHER ANOMALY	OTHER ANOMALY
L	L	H	OTHER ANOMALY	OTHER ANOMALY
L	L	HH	OTHER ANOMALY	OTHER ANOMALY
L	LL	N	OTHER ANOMALY	OTHER ANOMALY
L	LL	L	OTHER ANOMALY	OTHER ANOMALY
L	LL	H	OTHER ANOMALY	OTHER ANOMALY
L	LL	HH	BATTERY-SIDE SHORT CIRCUIT OF Vs+, Ip+, OR COM	BATTERY-SIDE SHORT CIRCUIT OF Vs+, Ip+, OR COM
H	N	N	OTHER ANOMALY	OTHER ANOMALY
H	N	L	OTHER ANOMALY	OTHER ANOMALY
H	N	H	OTHER ANOMALY	OTHER ANOMALY
H	N	HH	OTHER ANOMALY	OTHER ANOMALY
H	L	N	OTHER ANOMALY	OTHER ANOMALY
H	L	L	OTHER ANOMALY	OTHER ANOMALY
H	L	H	OTHER ANOMALY	OTHER ANOMALY
H	L	HH	OTHER ANOMALY	OTHER ANOMALY
H	LL	N	OTHER ANOMALY	OTHER ANOMALY
H	LL	L	OTHER ANOMALY	OTHER ANOMALY
H	LL	H	OTHER ANOMALY	OTHER ANOMALY
H	LL	HH	Vs+ BREAKAGE OR GROUND-SIDE SHORT CIRCUIT OF Vs+	Vs+ BREAKAGE OR GROUND-SIDE SHORT CIRCUIT OF Vs+

FIG. 4

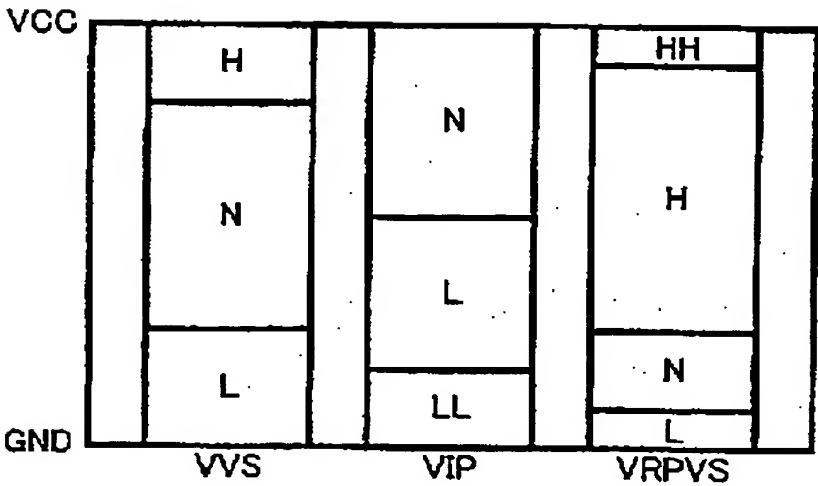


Fig. 5

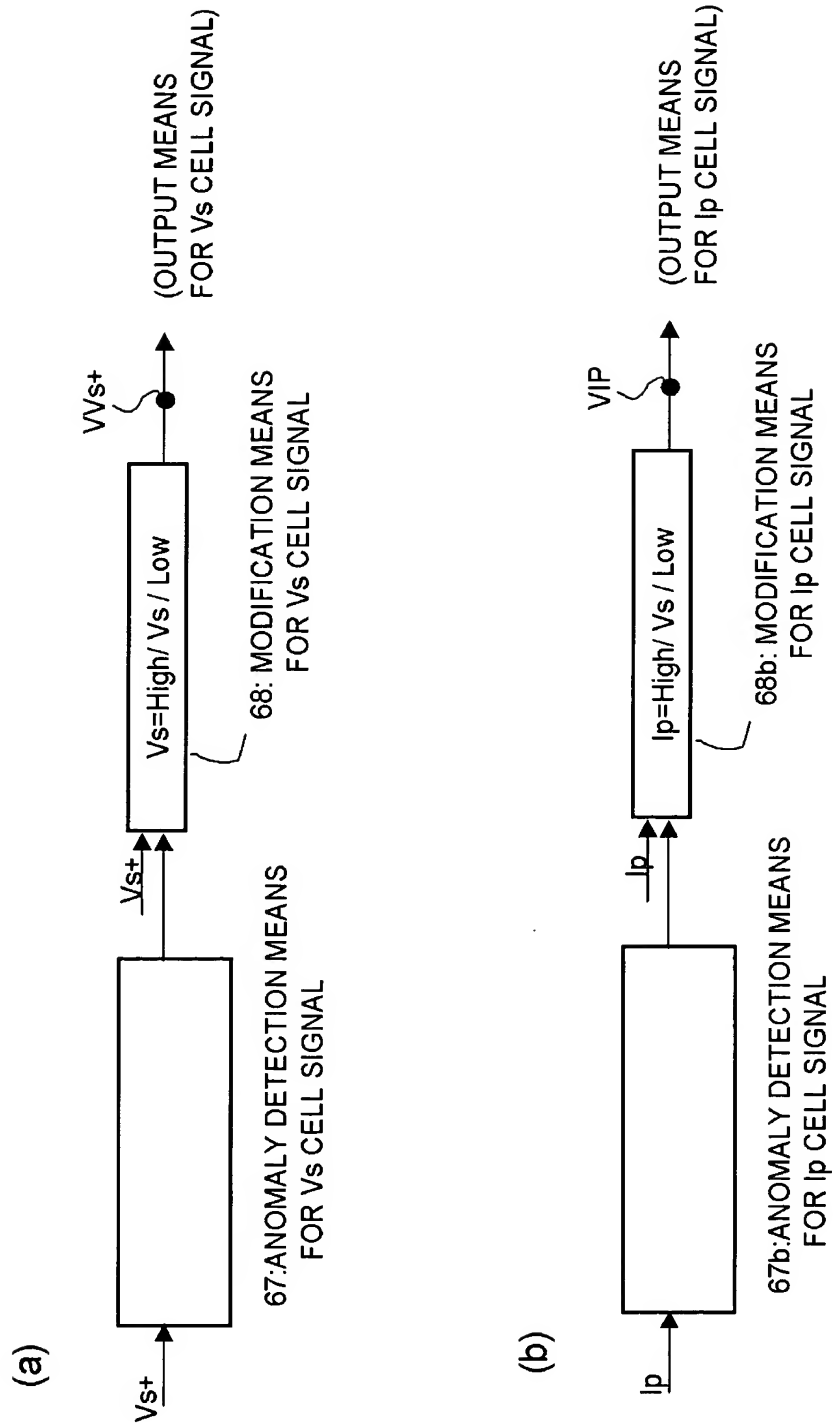


Fig. 6

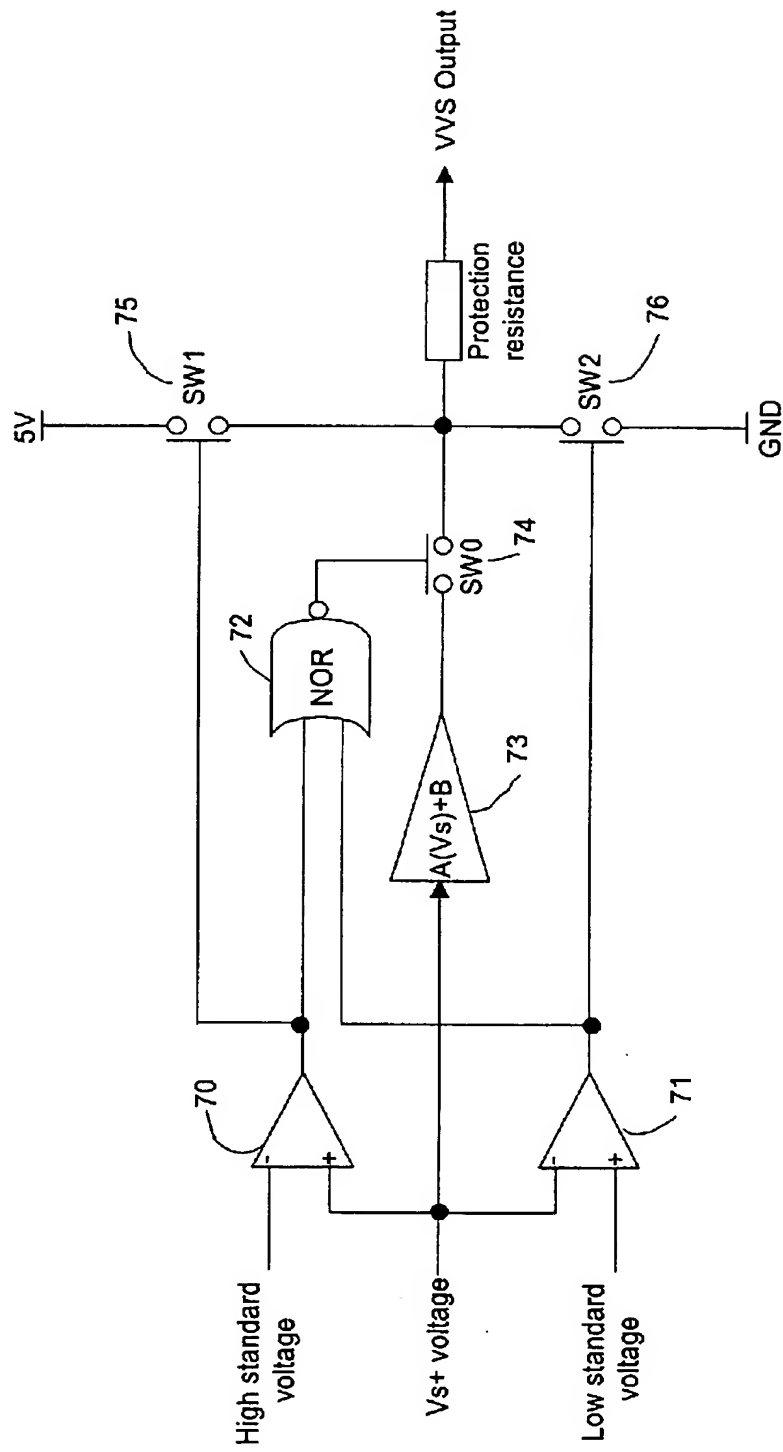


Fig. 7

Vs+ voltage	70		71		72		74		75		76	
	Comparator 1	Comparator 2	NOR	SW0	SW1	SW2	VVS Output					
	High	L	L	Off	On	Off	5V					
	Normal	L	L	On	Off	Off	$A(Vs) + B$					
Low	L	H	L	Off	Off	On	0V					

FIG. 8

